Remarks/Arguments

In the Specification, the paragraph beginning on page 10 line 3 has been amended, and no new matter has been introduced.

Claims 1, 3-7, 9-12, and 15-18 have been amended. No new claims have been added. No claims have been canceled. Claims 1, 3-7, 9-13, and 15-18 remain pending in this application. Reexamination and reconsideration of the application as amended are respectfully requested.

Drawings Objections

The Examiner objected to the Drawings, and in particular to Figure 1, as failing to comply with 37 CFR 1.84(p)(4) because reference character 30 was used to designate all computers (i.e., four computers). The Examiner also objected to Figure 1 because two labels were the same, i.e., "Local Area Network". Applicants have attached a replacement sheet comprising a corrected Figure 1 drawing in which the four computers have difference reference numerals (31, 33, 35, and 37), and in which the two labels "Local Area Network" have been replaced by a label "Local Area Network 1" and a label "Local Area Network 2". Applicants have also made corresponding changes to the Specification in the paragraph beginning on page 10 line 3, and no new matter has been introduced.

Claim Objections

The Examiner objected to claims 3-6, 9-12, and 15-18 under 37 CFR 1.75(c) as claims presented in dependent form after deleting the parent claim. Applicants have appropriately amended claims 3-6, 9-12, and 15-18 to depend from pending non-canceled claims.

Claim Rejections - 35 USC § 103

The Examiner rejected claims 1-18 under 35 U.S.C. § 103(a) as being unpatentable over Xu et al. (U.S. Patent 6,324,581), and further in view of Schmuck et al., U.S. Patent 5,940,841. Applicants respectfully traverse this rejection for the reasons set forth below.

Claims 2, 8, and 14

Applicants' Amendment dated December 6, 2002 previously requested the cancellation of claims 2, 8, and 14, and the Examiner canceled claims 2, 8, and 14 in Section 1 of the present Office Action.

Claims 1, 7, and 13

The Examiner rejected independent claims 1, 7, and 13 under 35 U.S.C. § 103(a) as being unpatentable over Xu et al. (U.S. Patent 6,324,581), and further in view of Schmuck et al., U.S. Patent 5,940,841. Applicants respectfully traverse this rejection for the reasons set forth below.

Regarding claims 1, 7, and 13, the Examiner argues that Xu et al. (column 8 lines 47-59 and Figure 2) teaches the fifth claim element of "determining a subset of the foreign file attributes which are equivalent to a corresponding subset of file attributes of the native file system, the subset of the foreign file attributes hereinafter known as conventional file attributes". However, Xu et al. (column 8 lines 47-59) reads:

> "For example, when the first data mover 41 receives a file access request from its client 46, it accesses its directory of file ownership information to determine whether or not it owns the file system to be accessed. If the first data mover 41 does not own the file system to be accessed, then the first data mover 41 sends a metadata request to the data mover that owns the file system to be accessed. For example, if the first client 46 requests access to the second file system 44, then the first data mover 41 sends a metadata request to the second data mover 42. The term metadata refers to information about the data, and the term metadata is inclusive of file access information and file attributes."

Xu et al. teaches file attributes such as a file ownership file attribute indicating which data mover owns a particular file. Xu et al. also teaches foreign file attributes such as the file attributes sent to a first data mover of a file located on and owned by a second data mover. However, Xu et al. fails to teach or suggest determining a subset of these second data mover file attributes (foreign file attributes) or determining a subset of the second data mover file attributes which are equivalent to a corresponding subset of file attributes of the first data mover (determining a subset of the foreign file attributes which are equivalent to a corresponding subset of file attributes of the native file system). Xu et al. merely teaches using a file attribute of the native file system (file

ownership) to determine if the file is owned by and located on the native file system. If the file is not owned by and located on the native file system, then Xu et al. teaches using the file attribute of the native file system (file ownership) to determine which foreign file system (second data mover) owns the file so that a request may be sent to the foreign file system (second data mover) to obtain the file's file attributes (foreign file attributes). However, Xu et al. fails to teach or suggest any comparison of these foreign file attributes (second data mover) to the file attributes of the native file system (first data mover) to determine any subset; or in particular, any subset of second data mover file attributes which are equivalent to a subset of first data mover file attributes. Schmuck et al. also fails to teach or suggest this element, and the Examiner does not allege that Schmuck et al. teaches or suggests this element.

Thus, even if the teachings of Xu et al. and Schmuck et al. are combined, the alleged combination fails to teach or suggest the present invention as claimed by independent claims 1, 7, or 13. Applicants therefore submit that the Examiner's rejections of claims 1, 7, and 13 are traversed, and Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 103(a) rejections of independent claims 1, 7, and 13.

Regarding independent claims 1, 7, and 13, the Examiner also argues that Xu et al. teaches the sixth claim element "returning the conventional file attributes to the client". As discussed above, since neither Xu et al., Schmuck et al., nor the combination of Xu et al. and Schmuck et al. teach or suggest the fifth element, they cannot teach or suggest the result of the fifth element, the

conventional file attributes. The conventional file attributes are defined by the fifth element as the subset of the foreign file attributes which are equivalent to a corresponding subset of file attributes of the native file system. As neither Xu et al., Schmuck et al., nor the combination of Xu et al. and Schmuck et al. teach or suggest the conventional file attributes, they cannot teach or suggest "returning the conventional file attributes to the client". Thus, even if the teachings of Xu et al. and Schmuck et al. are combined, the alleged combination fails to teach or suggest the present invention as claimed by independent claims 1, 7, or 13. Applicants therefore submit that the Examiner's rejections of claims 1, 7, and 13 are traversed, and Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 103(a) rejections of independent claims 1, 7, and 13.

Regarding independent claims 1, 7, and 13, the Examiner also argues that although Xu et al. fails to teach the seventh element, that Schmuck et al. teaches the seventh claim element "storing a remaining subset of the foreign file attributes which are not equivalent to a corresponding subset of file attributes of the native file system, the remaining subset of the foreign file attributes hereinafter known as extended file attributes" at Figure 2 and at column 8, lines 47-59. There is no Figure 2 in Schmuck et al. Schmuck et al. only contains a single Figure 1. Schmuck et al. at column 8, lines 47-59 reads:

> "File system implementations that support sparse files efficiently allocate disk storage only for the areas of a file to which data was written, but not for holes, or at least not for holes that are larger than the block size or the unit of disk allocation used by the file system. An

index or directory based on extendible hashing is implemented using a sparse file in our preferred embodiment. Each hash bucket is stored in the file at an offset given as i*s, where i is the hash bucket number (starting with zero) and s is the hash bucket size (all hash buckets have the same size). The directory starts out as an empty file. When the first record is inserted, it is stored in hash bucket zero, which is subsequently written to the file, increasing the file size from zero to s."

As these cited teachings have nothing to do with native file system attributes, foreign file system attributes, equivalency between native file system attributes and foreign file system attributes, or extended file attributes, Applicants note the interesting coincidence of the two similar citations in two different references, i.e., Xu et al. at Figure 2 and column 8, lines 47-59 and Schmuck et al. at Figure 2 and column 8, lines 47-59. Thus, even if the teachings of Xu et al. and Schmuck et al. are combined, the alleged combination fails to teach or suggest the present invention as claimed by independent claims 1, 7, or 13. Applicants therefore submit that the Examiner's rejections of claims 1, 7, and 13 are traversed, and Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. § 103(a) rejections of independent claims 1, 7, and 13.

Claims 3-6, 9-12, and 15-18

Relative to dependent claims 3-6, 9-12, and 15-18, since these dependent claims depend from one of independent claims 1, 7, or 13, and Applicants believe that they have successfully traversed the Examiner's rejection of independent claims 1, 7, and 13, Applicants respectfully

request that the Examiner reconsider and withdraw the 35 U.S.C. § 103(a) obviousness rejections of dependent claims 3-6, 9-12, and 15-18.

Conclusion

Applicants therefore respectfully request that the Examiner reconsider all currently outstanding objections and rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this Application, the Examiner is invited to telephone the undersigned at the number provided. Prompt and favorable consideration of this Response is respectfully requested.

Respectfully submitted,
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